

La Capital

Monterrey, Mexico (2014)

BACKGROUND

La Capital is a multi-use building featuring distinctly modern urban architectural features, while at the same time paying respect to the legacy of Monterrey's history and culture. The underground springs and caves present the area with a surprisingly high water table. In the case of La Capital, the water table is located only 6-7m (19-23ft.) below ground level. As La Capital was designed to incorporate four levels of below grade parking, the water table and high water pressure were critical factors that needed to be addressed in order for the project to be successful. If the below grade concrete areas were not waterproofed effectively, the high water pressure could carry these contaminants into the structure itself, causing corrosion and deterioration of the concrete and the reinforcing steel.

Furthermore, to maximize the footprint of the building, and to reduce construction time and costs, the contractors elected to use shotcrete for the four below grade levels of La Capital. Shotcrete can be very challenging to waterproof, especially in below grade areas where a high water table is present.

SOLUTION

Kryton's Krystol Internal Membrane™ (KIM®) is specifically designed to allow concrete to permanently withstand high hydrostatic pressure, as it is the one true PRAH (Permeability Reducing Admixture for Hydrostatic Conditions), as defined by the American Concrete Institute (ACI). Furthermore, as shotcrete was being used, an external membrane was not an option due to the risks of tears and punctures.

KIM, along with Kryton's Krystol Waterstop System™, was selected as the ideal concrete waterproofing solution for this application. KIM's proprietary chemicals react with water to form millions of needle-like crystals. These crystals grow and fill the capillary pores and micro-cracks in the concrete, blocking the flow of water. As time passes and stresses form new cracks, any incoming moisture causes the crystals to reactivate, ensuring a continuous watertight seal that will last as the area grows with La Capital.

OWNER/DEVELOPER:

Desarrollos Delta

CONTRACTOR:

Maiz Mier

READY-MIXER:

CEMEX

APPLICATOR:

Sandstorm GAM

DISTRIBUTOR:

Kalte Waterproofing

PRODUCTS:

Learn more at kryton.com

Krystol Internal Membrane™ (KIM®)

Krystol Waterstop System™



La Capital constructing below grade using KIM to waterproof the shotcrete



La Capital nestled along Monterrey's pristine canal.